

REMARKS**A. Status of the Claims and Explanation of the Amendments**

Prior to the submission of this paper, claims 1-18 were pending. In this paper, Applicant has respectfully requested the cancellation of claim 14 and the addition of new claims 19-27. Upon entry of these amendments, the claims presented for examination will be claims 1-13, and 15-27.

Claims 1, 17, and 18 have been amended to recite, *inter alia*, “[a]n organic electroluminescent device comprising...an organic layer... wherein the organic layer is a stacked structure that includes at least two light emitting layers that emit light of different colors from one another, said light emitting layers being arranged such they are in different layers, when said stack structure is viewed in cross section.” Support for these amendments to claims 1 and 18 can be found in original claim 14; at page 11, lines 4-8 of the specification as filed; and in Figure 2.

Claims 1, 2, 4, 6, 11, and 14-16 have been rejected under 35 U.S.C. §102(e) as allegedly being anticipated by US Patent Application No. 2003/0048072 to Ishihara et al. (“Ishihara”). Claims 1-3 and 7-12 have been rejected under 35 U.S.C. §102(e) as allegedly being anticipated by US Patent Application No. 2005/0012448A1 to Ke et al. (“Ke”). Claims 1-4, 6-9, and 11-13 have been rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent Application No. 2003/0062826 to Seo (“Seo”). Claims 10, 17, and 18 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Seo, in view of U.S. Patent No. 5,714,838 to Haight et al. (“Haight”). Claim 5 has been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Seo.

B. Applicant's Claims Are Not Anticipated by the Cited References

Applicant respectfully traverses the rejection of claims 1, 2, 4, 6, 11, and 14-16 under 35 U.S.C. §102(e) as allegedly being anticipated by Ishihara; the rejection of claims 1-3 and 7-12 under 35 U.S.C. §102(e) as allegedly being anticipated by Ke; and the rejection of claims 1-4, 6-9, and 11-13 as allegedly being anticipated by Seo. Briefly, none of these references teaches, discloses or suggests all of the claim elements of Applicant's invention. Accordingly, the rejection of these claims should be withdrawn. See MPEP §2131.

For the purposes of illustration, Applicant focuses the discussion on amended claim 1, but respectfully asserts that the following arguments apply with equal force to the corresponding dependent claims. Applicant's amended claim 1, reproduced here for the convenience of the Examiner, reads as follows:

1. An organic electroluminescent device comprising:
 - a substrate;
 - an anode and a cathode each located on or above the substrate, wherein one of the anode and the cathode is located above the other one; and
 - an organic layer located between the anode and the cathode, wherein the organic layer having at least a light emitting layer;
 - wherein the cathode has an electron injection layer and a protective layer, the electron injection layer has a first surface and a second surface, the first and second surfaces are on opposite sides of the electron injection layer, the first surface faces the organic layer, the second surface faces away from the organic layer, the protective layer covers the second surface to protect the electron injection layer, the electron injection layer is made of pure metal, metal alloy, or a metal compound, and the protective layer is made of pure metal or metal alloy,
 - and wherein the organic layer is a stacked structure that includes at least two light emitting layers that emit light of different colors from one another, said light emitting layers being

arranged such they are in different layers, when said stack structure is viewed in cross section.

As discussed below, none of the references cited in connection with the §102 rejections (i.e., Ishihara, Ke, and Seo) teaches, discloses, or suggests all of the claim elements of Applicant's claims. Accordingly, the rejections under §102 should be withdrawn. MPEP §2131.

1. Ishihara Does Not Anticipate Applicant's Claims

Ishihara is directed to an organic light emitting element and a display device.

According to the Office Action

Ishihara discloses [in Figure 6b] an organic EL device including a substrate, an anode formed on the substrate, an organic layer formed on the anode and including a light emitting layer, and a cathode formed on the organic layer. The cathode further includes an electron injecting/transporting layer and a metal film covering the electron injecting layer. The electron transporting layer is a metal compound (Paragraph 53) while the metal thin film is a metal layer (Paragraph 136). [Office Action, page 3].

Applicant, however, respectfully maintains that Ishihara does not anticipate Applicant's claims, for at least the following reasons.

- (1) **Figure 6 does not show an electron injection layer:** It seems to Applicant that the Office Action mischaracterizes Figure 6B of Ishihara as teaching an "electron injecting/transporting layer", when in fact none of the layers in Figure 6B is labeled as such. Rather, Figure 6B contains an "electron transport layer", but this is not necessarily the same as an "electron injection layer." In fact, Ishihara itself clearly differentiates between an "electron injection layer" and an "electron transporting layer"

(cf. paragraphs [0053] and [00054]). In paragraph [0040], Ishihara further states that an electron injection layer is optional, and that the devices “may not have the first injection layer [for holes] or the second injection layer [for electrons]”. Thus, Applicant contends that the Office Action’s claim that Figure 6B shows an “electron injecting/transporting layer” is unsupported by Ishihara.

- (2) **Figure 6 does not show an “organic layer”.** Neither Figure 6 nor the corresponding text of Ishihara appears to teach, disclose, or suggest an “organic layer [that] is a stacked structure that includes at least two light emitting layers that emit light of different colors from one another, said light emitting layers being arranged such they are in different layers, when said stack structure is viewed in cross section.” At best, Figure 6a of Ishihara discloses a device which has three light emitting regions, corresponding to red, green, and blue light, that are a part of the same layer, when viewed in cross section..

Applicants have reviewed the rest of Ishihara and do not see where Ishihara teaches, expressly or otherwise, the invention claimed in Applicant’s claims. For example, Figures 1-5 (and the corresponding text), which were not relied upon by the Office Action, do not appear to teach “[a]n organic electroluminescent device...comprising...an...electron injection layer...and a protective layer” as recited in Applicant’s amended claim 1 and corresponding dependent claims.

In short, Ishihara fails to teach, disclose, or suggest all of the claim elements in Applicant's claims. Accordingly, the §102 rejection based on Ishihara should be withdrawn. See MPEP §2131. Applicant respectfully requests the reconsideration and withdrawal of the §102 rejections of claims 1, 2, 4, 6, 11, and 15-16 over Ishihara.¹

2. Ke Does Not Anticipate Applicant's Claims

In rejecting claims 1-3 and 7-12 under 35 U.S.C. §102, the Office Action alleges that

Ke discloses [in Figure 1] an organic EL device including a substrate (2), an anode (3) formed on the substrate, and organic layer (5-6) formed on the anode and including a light emitting layer (6), and a cathode (8) formed on the organic layer. The cathode further includes an electron injecting layer (9) and a metal film (10) covering the electron injecting layer. The electron injecting layer is constructed of Calcium while the metal thin film is made of Silver... [Office Action, page 4, ¶2].

Without even addressing the accuracy of the assertions of the Office Action, Applicant respectfully notes that Figure 1 of Ke does not appear to teach, disclose, or suggest "an organic layer... wherein the organic layer is a stacked structure that includes at least two light emitting layers that emit light of different colors from one another, said light emitting layers being arranged such they are in different layers, when said stack structure is viewed in cross section" as recited in Applicant's amended claim 1. At best, the device in Figure 1 of Ke appears to emit only light of one color. Furthermore, Applicant does not see any other part of Ke that teaches, discloses, or suggests an "organic layer" with the structure recited in Applicant's claims.

¹ Applicant does not address the rejection of claim 14 here, as this rejection has been rendered moot by Applicant's request for cancellation of claim 14.

For at least these reasons, Applicant respectfully maintains that Ke fails to teach or disclose all of the claim elements of Applicant's claims 1-3 and 7-12. Accordingly, the §102 rejections should be withdrawn. MPEP §2131. Reconsideration and withdrawal of the rejection are respectfully requested.

3. Seo Fails to Teach or Disclose "An Organic Layer" As Recited in Applicant's Claims.

Seo is directed to a light emitting device and a method for making a light emitting device. According to the Office Action,

Seo discloses [in Figure 5] an organic EL device including a substrate, an anode (501), an organic layer (502) formed on the anode including a light emitting layer (504), and a cathode (505) formed on the organic layer. The cathode further includes an electronic injecting layer and a metal film covering the electron injecting layer. The electron injecting layer is constructed of Cesium while the metal thin film is made of Aluminum. ..." [Office Action, paragraph bridging pages 4 and 5].

However, Figure 5 of Seo does not appear to teach, disclose, or suggest "an organic layer... wherein the organic layer is a stacked structure that includes at least two light emitting layers that emit light of different colors from one another, said light emitting layers being arranged such they are in different layers, when said stack structure is viewed in cross section" as recited in Applicant's amended claim 1. Instead, Figure 5 merely shows one light emitting layer 504, which appears to be homogenous and made of PPV. Thus, Applicant contends that the light emitting layer 504 of Seo emits only one color of light and is not an "organic layer [that] includes at least two light emitting layers" as recited in Applicant's claims.

Further, Applicant does not see any teaching, express or otherwise, of Applicant's device anywhere else in Seo. For example, in paragraphs [0167] – [0173], Seo discusses

methods for producing a device that can emit red, green, or blue light, but does not appear to teach the arrangement of different light emitting layers as recited in Applicant's claims. Moreover, although Seo mentions that organic layer 1404 in Figure 14 may contain layers that emit red, blue, and green light, Seo does not state explicitly that these layers are stacked. Given the grid-like arrangement of anodes 1402 and insulating banks 1403, Applicant contends that the layers are actually laterally separated as individual color pixels, rather than arranged in a stacked structure, as recited in Applicant's claims. Moreover, the structure of the rest of the device in Figure 14 is radically different from Applicant's inventive device as claimed in amended claim 1. For example, the device does not appear to have a "protective layer" as recited in Applicant's claims.

For at least these reasons, Applicant believes that Seo does not anticipate Applicant's claims. See MPEP §2131. Accordingly, reconsideration and withdrawal of the §102 rejections based on Seo are respectfully requested.

C. Applicant's Claims Are Patentable Over the Cited References

Applicant respectfully traverses the rejection of claims 10, 17, and 18 as being unpatentable over Seo, in view of Haight. As discussed above, Seo fails to teach an "organic layer" as recited in Applicant's claims. Haight does not alleviate the deficiencies of Seo, because Haight only mentions light emitting layers consisting of a single layer of Alq3. Accordingly, the combination of references fails to teach, disclose, or suggest all of the claim elements, and the §103 rejection should be withdrawn. MPEP §2143.

Furthermore, with respect to claim 5, which was alleged to be unpatentable over Seo alone, Applicant maintains that Seo does not teach an "organic layer" as recited in

Applicant's claim 1, from which claim 5 depends. Accordingly, Seo fails to teach all of the claim elements of claim 5, and the rejection should be withdrawn. MPEP §2143.

Reconsideration and withdrawal of the rejections under §103 are respectfully requested.

CONCLUSION

Based on the foregoing amendments and remarks, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims and allowance of this application.

AUTHORIZATION

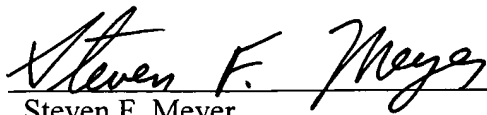
The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. **13-4500**, Order No. 5000-5131. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. **13-4500**, Order No. 5000-5131. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

Respectfully submitted,
MORGAN & FINNEGAN, L.L.P.

Dated: November 23, 2005

By:


Steven F. Meyer
Registration No. 35,613

Correspondence Address:

MORGAN & FINNEGAN, L.L.P.
3 World Financial Center
New York, NY 10281-2101
(212) 415-8700 Telephone
(212) 415-8701 Facsimile

CONCLUSION

Based on the foregoing amendments and remarks, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims and allowance of this application.

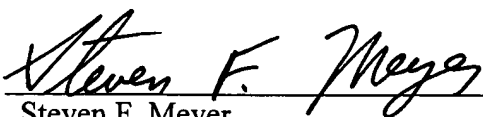
AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. **13-4500**, Order No. 5000-5131. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. **13-4500**, Order No. 5000-5131. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

Respectfully submitted,
MORGAN & FINNEGAN, L.L.P.

Dated: November 23, 2005

By: 
Steven F. Meyer
Registration No. 35,613

Correspondence Address:

MORGAN & FINNEGAN, L.L.P.
3 World Financial Center
New York, NY 10281-2101
(212) 415-8700 Telephone
(212) 415-8701 Facsimile